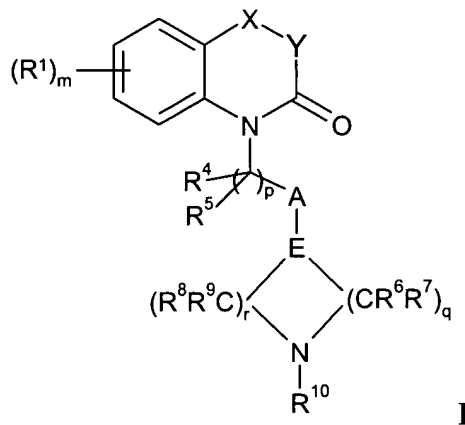


Claim Listing

1. (Currently Amended) A compound of the formula:



and pharmaceutically acceptable salts or prodrugs thereof,

wherein:

m is from 0 to 4;

p is from 1 to 3;

q is from 1 to 3;

r is from 1 to 3;

A is optionally substituted arylene ~~or heteroarylene~~;

E is N ~~or C~~;

X is ~~O, S, or~~ $-CR^aR^b-$ wherein R^a and R^b each independently is hydrogen or alkyl;

each R^1 independently is halo, alkyl, haloalkyl, ~~heteroalkyl~~, hydroxy, nitro, alkoxy, cyano, $-S(O)_sR^c$, $-NR^cR^d$, $-C(=O)-NR^cR^d$, $-SO_2-NR^cR^d-N(R^c-C(=O)-R^d$ or $-C(=O)-R^c$, wherein s is from 0 to 2 and R^c and R^d each independently is hydrogen or alkyl;

Y is $-(CR^2R^3)_n-$ wherein n is 1 or 2 and R^2 and R^3 each independently is hydrogen or alkyl, or X and Y together form a $-CH=CH-$ an alkenylene group;

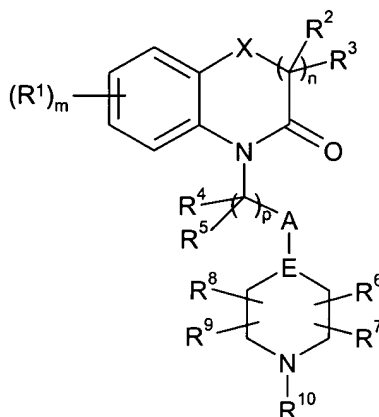
R^4 , R^5 , R^6 , R^7 , R^8 , and R^9 each independently is hydrogen or alkyl; and

R^{10} is hydrogen, alkyl, arylalkyl, or aryloxyalkyl, ~~heteroaryl or heterocyclyl~~.

2. (Canceled)
3. (Canceled)
4. (Withdrawn) The compound of claim 2, wherein X is O.
5. (Original) The compound of claim 3, wherein Y is $-(CR^2R^3)_n-$ and n is 1.
6. (Original) The compound of claim 3, wherein Y is $-(CR^2R^3)_n-$ and n is 2.
7. (Original) The compound of claim 5, wherein A is optionally substituted phenylene.
8. (Original) The compound of claim 7, wherein R^2 , R^3 , R^a and R^b are hydrogen.
9. (Original) The compound of claim 7, wherein q is 2 and r is 2.
10. (Original) The compound of claim 7, wherein m is 0.
11. (Original) The compound of claim 7, wherein m is 1 and R^1 is halo or alkoxy.
12. (Currently Amended) The compound of claim 7, wherein A is halophenylene, haloalkylphenylene, alkylphenylene, cyclopentyloxyphenylene alkoxyphenylene or alkylenedioxyphenylene.
13. (Original) The compound of claim 7, wherein R^6 , R^7 , R^8 and R^9 are hydrogen.
14. (Original) The compound of claim 4, wherein Y is $-(CR^2R^3)_n-$ and n is 1.

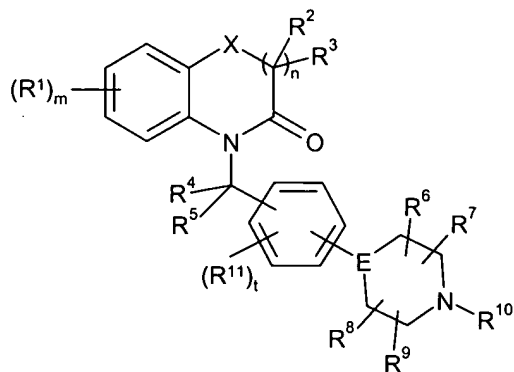
15. (Original) The compound of claim 4, wherein Y is $-(CR^2R^3)_n-$ and n is 2.
16. (Original) The compound of claim 14, wherein A is optionally substituted phenylene.
17. (Original) The compound of claim 16, wherein R^2 , R^3 , R^a and R^b are hydrogen.
18. (Original) The compound of claim 16, wherein q is 2 and r is 2.
19. (Original) The compound of claim 16, wherein m is 0.
20. (Original) The compound of claim 16, wherein m is 1 and R^1 is halo or alkoxy.
21. (Currently Amended) The compound of claim 16, wherein A is halophenylene, haloalkylphenylene, alkylphenylene, alkoxyphenylene, cyclopentyloxyphenylene or alkylenedioxyphenylene.
22. (Original) The compound of claim 16, wherein R^6 , R^7 , R^8 and R^9 are hydrogen.
23. (Withdrawn) The compound of claim 5, wherein A is heteroarylene.
24. (Withdrawn) The compound of claim 23, wherein A is indolylene or pyrimidinylene.
25. (Original) The compound of claim 7, wherein R^{10} is hydrogen or alkyl.

26. (Original) The compound of claim 25, wherein R^{10} is arylalkyl, or aryloxyalkyl.
27. (Original) The compound of claim 26, wherein R^{10} is 2-(4-fluorophenyl)-ethyl or 2-(4-methoxyphenyl)-ethyl.
28. (Withdrawn) The compound of claim 7, wherein R^{10} is heteroaryl or heterocyclyl.
29. (Withdrawn) The compound of claim 28, wherein R^{10} is imidazolynyl such as imidazolin-2-yl.
30. (Original) The compound of claim 1, wherein said compound is of the formula:



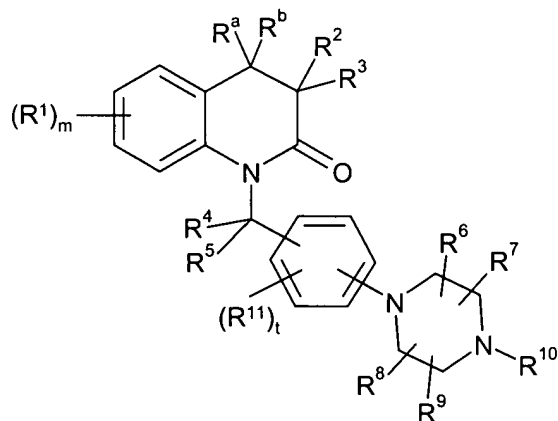
wherein m , n , p , X , A , E , R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 and R^{10} are as defined in claim 1.

31. (Original) The compound of claim 30, wherein said compound is of the formula:



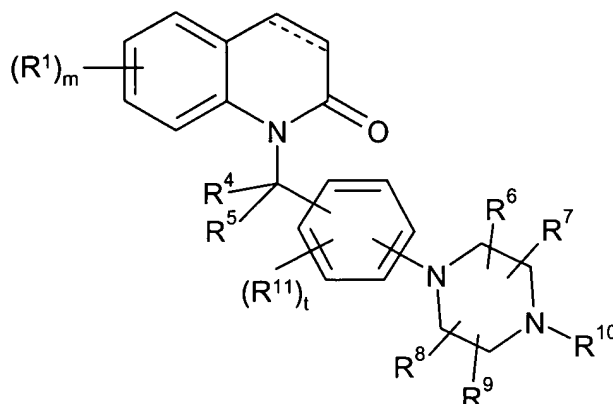
wherein t is from 0 to 4, each R^{11} individually is halo, alkyl, haloalkyl, hydroxy, nitro, cyano or alkoxy, and m , n , X , E , R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 and R^{10} are as defined in claim 30.

32. (Original) The compound of claim 31, wherein said compound is of the formula:



wherein m , t , R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^a and R^b are as defined in claim 31.

33. (Currently Amended) The compound of claim 1 ~~32~~, wherein said compound is of the formula:



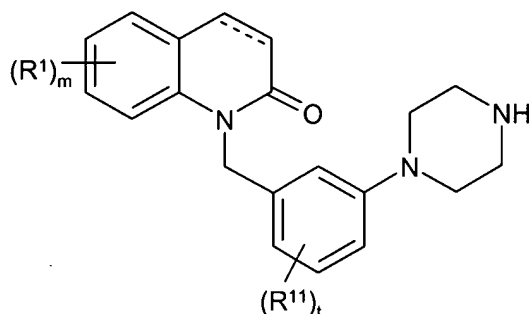
wherein ----- is an optional bond;

t is from 0 to 4;

each R¹¹ individually is halo, alkyl, haloalkyl, hydroxy, nitro, cyano or alkoxy; and

m, R¹, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹ and R¹⁰ are as defined in claim 1 and m, t, R¹, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰ and R¹¹ are as defined in claim 32.

34. (Original) The compound of claim 33, wherein said compound is of the formula:



wherein ----- is an optional bond, and m, t, R¹ and R¹¹ are as defined in claim 33.

35. (Original) The compound of claim 34, wherein t is 0 or 1 and R¹¹ is halo, alkyl, haloalkyl or alkoxy.

36. (Original) The compound of claim 35, wherein R¹¹ is chloro, methyl, trifluoromethyl, methoxy or ethoxy.

37. (Original) The compound of claim 34, wherein t is 2 and the R¹¹ groups together define an alkylene dioxy radical.

38. (Currently Amended) The compound of claim 1, wherein said compound is selected from the group consisting of:

- 1-(3-Piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(4-Methoxy-3-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Chloro-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Methoxy-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 6-Chloro-1-(3-chloro-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Cyclopentyloxy-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Hydroxy-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Ethoxy-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-[3-Methoxy-5-(4-methylpiperazin-1-yl)-benzyl]-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(7-Piperazin-1-yl-2,3-dihydro-benzo[1,4]dioxin-5-ylmethyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Piperazin-1-yl-5-trifluoromethyl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(2-Chloro-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(3-Methyl-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 8-Methoxy-1-(3-Methoxy-5-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 1-(2-Methoxy-3-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;
- 4-(3-Chloro-5-piperazin-1-yl-benzyl)-7-methoxy-4*H*-benzo[1,4]oxazin-3-one;
- 1-(3-Piperazin-1-yl-benzyl)-1,3,4,5-tetrahydrobenzo[b]azepin-2-one;
- ~~1-(2-Chloro-6-piperazin-1-yl-pyrimidin-4-ylmethyl)-3,4-dihydro-1*H*-quinolin-2-one;~~
- 1-(3-Methoxy-5-piperazin-1-yl-benzyl)-1*H*-quinolin-2-one;
- ~~1-(5-Piperazin-1-yl-1*H*-indol-3-ylmethyl)-3,4-dihydro-1*H*-quinolin-2-one;~~
- 1-(2-Methoxy-3-piperazin-1-yl-benzyl)-3,4-dihydro-1*H*-quinolin-2-one;

1-(3-Methoxy-5-{4-[2-(4-methoxy-phenyl)-ethyl]-piperazin-1-yl}benzyl)-1H-quinolin-2-one;

1-(3-{4-[2-(4-Fluorophenyl)-ethyl]-piperazin-1-yl}-5-methoxybenzyl)-1H-quinolin-2-one;

~~1-{3-[4-(4,5-Dihydro-1H-imidazol-2-yl)-piperazin-1-yl]-5-methoxybenzyl}-1H-quinolin-2-one;~~

~~1-[3-Methoxy-5-(4-pyrimidin-2-yl-piperazin-1-yl)-benzyl]-1H-quinolin-2-one;~~

1-(3-{4-[2-(4-Fluoro-phenyl)-ethyl]-piperazin-1-yl}-5-methoxy-benzyl)-8-methoxy-1H-quinolin-2-one;

1-(3-{4-[2-(4-Fluoro-phenoxy)-ethyl]-piperazin-1-yl}-5-methoxy-benzyl)-1H-quinolin-2-one; and

8-Methoxy-1-(3-methoxy-5-{4-[2-(4-methoxy-phenyl)-ethyl]-piperazin-1-yl}-benzyl)-1H-quinolin-2-one.

39. (Original) A pharmaceutical composition comprising an efficacious amount of the compound of claim 1 in admixture with a pharmaceutically acceptable carrier.

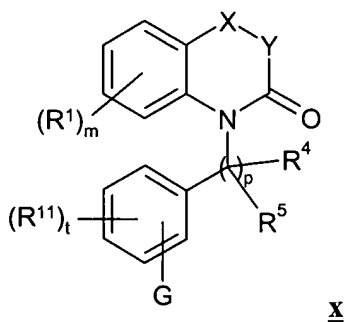
40. (Currently Amended) A method for treating a ~~central nervous system~~ **5-HT6 antagonist-mediated** disease state in a subject, **said disease state selected from the group consisting of Parkinson's disease, Huntington's disease, manic depression, psychoses, Alzheimer's disease and memory disorders,** said method comprising administering to said subject a therapeutically effective amount of a compound of claim 1.

41. (Canceled)

42. (Withdrawn) A method for treating a disorder of the gastrointestinal tract in a subject, said method comprising administering to said subject a therapeutically effective amount of a compound of claim 1.

43. (Currently Amended) A method for preparing a quinolinone or benzoxazinone compound, said method comprising:

reacting a compound of the formula x:



wherein:

X is ~~O, S or~~ $-\text{CR}^a\text{R}^b-$, wherein R^a and R^b each independently is hydrogen or alkyl;

m is from 1 to 4;

n is 1 or 2;

p is from 0 to 3;

t is from 1 to 4;

G is a leaving group;

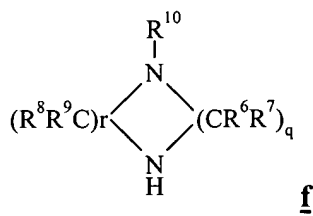
each R^1 independently is halo, alkyl, haloalkyl, ~~heteroalkyl~~, hydroxy, nitro, alkoxy, cyano, $-\text{S}(\text{O})_s\text{R}^c$, $-\text{NR}^c\text{R}^d$, $-\text{C}(=\text{O})-\text{NR}^c\text{R}^d$, $-\text{SO}_2-\text{NR}^c\text{R}^d-\text{N}(\text{R}^c-\text{C}(=\text{O})-\text{R}^d$ or $-\text{C}(=\text{O})-\text{R}^c$ where s is from 0 to 2 and R^c and R^d each independently is independently hydrogen or alkyl;

Y is $-(\text{CR}^2\text{R}^3)_n-$ wherein n is 1 or 2 and R^2 and R^3 each independently is hydrogen or alkyl, or X and Y together form a -CH=CH- an alkenylene group;

R^4 and R^5 , each independently is hydrogen or alkyl; and

each R^{11} individually is halo, alkyl, haloalkyl, hydroxy, nitro, cyano or alkoxy;

with a heterocyclic amine of the formula f:



wherein:

q is from 1 to 3;

r is from 1 to 3; and

R^6 , R^7 , R^8 , R^9 and R^{10} each individually is hydrogen or alkyl;

to form a compound of the formula XIII:

